

REMARKS

The Examiner's recognition of Applicants' invention by the indication of allowable subject matter for claims 9, 12, 17 and 23 is gratefully acknowledged.

Claim 1 is amended to point out that the object detection sensor in Applicants' invention is adjustable to vary the size of the sensing zone, that the controller is operable coupled to the object detection sensor and the door position sensor and that the controller is adapted to adjust the sensor to vary the size of the sensing zone, as described in specification including at paragraphs 0017, 0024 and 0025. Claim 11 is similarly amended and more particularly points out that the sensitivity of the sensor is adjusted to vary the size of the sensing zone, as described at paragraph 0017. Claim 18 is amended to point that that Applicants' method includes locating the object detection sensor in the movable door, using a sensor that has a sensing zone and is adjustable to vary the size of the sensing zone, adjusting the size of the sensing zone, and sensing the presence of an object within the adjusted sensing zone, as described in the specification including at paragraph 0015 and beginning at paragraph 0027 referring to Fig. 5.

Claim Rejection under 35 USC § 102

Claims 1-8, 10-11, 13-16, 18-22, 24 and 25 were rejected under 35 U.S.C. § 102(b) as anticipated by United States Patent Application Publication No. US 2002/0074659, by Van Wiemeersch.

Van Wiemeersch describes a power liftgate 14 that includes sensors 32 for detecting an obstruction in the path during opening, see Fig. 1. It is significant that the preferred sensors in Van Wiemeersch are ultrasonic sonar devices, paragraph 0015. The range of the sonic sensor is determined by the ability of the sensor to send and receive ultrasonic signals, paragraph 0018. When an object is detected, the controller determines if the clearance distance is greater than the overhang distance to avoid obstruction with the door movement, paragraph 0018. The rejection points to the description at paragraph 0024, lines 9-13, wherein Van Wiemeersch describes that the controller is operative to establish different clearances for the sensors at different heights. Since the liftgate swings open, the distance needed for clearance depends upon the location of the sensor. However, Van Wiemeersch does not contemplate changing the properties of the sensor to send or receive signals. In contrast, Applicants' system uses a sensor that is adjustable to vary the size of the sensing zone. Thus, the controller is able to adjust the sensing zone based upon the door position, and so not sense objects that are beyond the movement of the door. Van Wiemeersch does not adjust the sensor, and so does not anticipate, or even suggest, Applicants' invention.

Claim 1 is directed to Applicants' detection system that includes an object detection sensor located on a movable door. The sensor is adjustable to vary the size of the sensing zone. The claim further calls for a controller that adjusts the sensor to vary the size of the sensing zone as a function of the sensed door position. Van Wiemeersch uses sensors, preferably ultrasonic sonar sensors, have a predetermined range that is not

adjustable, and so requires the controller to monitor sensed objects to determine that the clearance is sufficient to allow the door to move unobstructed. Thus, Van Wiemeersch does not teach or suggest Applicants' system in claim 1.

Claims 2-8 are dependent upon claim 1 and so not taught or suggest by Van Wiemeersch at least for the reasons set forth with regard to that claim.

Claim 10 is directed to Applicants' object detection system similar to claim 1, and more particularly points out that the sensitivity of the object detection sensor is adjustable to vary the size of the sensing zone. Van Wiemeersch does not contemplate varying the sensitivity of the sensor, and so does not teach or suggest Applicants' system in claim 10, or dependent claims 11 and 13-16.

Claim 18 is directed to Applicants' method for detecting an object in relation to a movable door that includes adjusting the size of the sensing zone of the sensor as a function of the sensed door position. As discussed above, Van Wiemeersch does not adjust the range of the sensors. Thus, Van Wiemeersch does not teach or suggest Applicants' method in claim 18 or in claims 19-15 dependent thereon.

Accordingly, it is respectfully requested that the rejection of the claims based upon Van Wiemeersch be reconsidered and withdrawn, and that the claims be allowed.

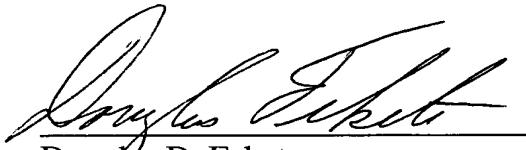
Conclusion

Claims 9,12, 17 and 23 were objected to as dependent upon rejected base claims. In view of the amendments and remarks herein, it is believed that the base claims are now allowable. Accordingly, it is requested that the objection be withdrawn, and that all claims be allowed.

If it would further prosecution of the application, the Examiner is urged to contact the undersigned at the phone number provided.

The Commissioner is hereby authorized to charge any fees associated with this communication to Deposit Account No. 50-0831.

Respectfully submitted,



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